

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method for producing a humanized antibody comprising humanizing the VH and VL variable regions of an animal antibody of known sequence, comprising the steps of:
 - a) obtaining ~~the~~ a crystallographic structure of the VH and VL regions of the animal antibody;
 - b) pre-selecting a series of 0 to n possible ~~frameworks~~ framework acceptors of human origin or humanized antibodies, whose structure was determined experimentally with a resolution of no ~~less~~ greater than ~~[[3]]~~ 2.5 Å, ~~based on the~~ wherein selected framework acceptors have the highest level of homology and identity with the primary sequence of the framework of the animal antibody;
 - c) conducting a structural comparison between the VH and VL variable regions of the animal antibody and the ~~regions VH and VL~~ VH and VL regions obtained in b), of the framework acceptors of human origin, respectively and calculating for each comparison the root mean square deviation (RMS, Å) RMS, to identify the ~~region VH and the region VL~~ VH region and the VL region of human origin with the smaller RMS; wherein the RMS is calculated between atoms of alpha carbon constituting the respective amino acid skeletons, not considering atom pairs with an RMS exceeding 2Å and
 - d) inserting in appropriate position the sequences of ~~the regions~~ a CDR region of the animal antibody ~~in~~ into the ~~human sequences~~ VH region and the VL region of human origin identified in c)~~[[;]]~~.
2. (Currently Amended) The method of claim 1, wherein the modifications of the antibody take place with ~~recombining~~ recombinant DNA techniques.
- 3-7. (Canceled)

8. (Previously Presented) A humanized anti-NGF antibody comprising a VH region having the amino acid sequence set forth in SEQ ID NO:17 and a VL region having the amino acid sequence set forth in SEQ ID NO: 18, or a fragment thereof which maintains NGF binding activity.
9. (Previously Presented) A humanized anti-TrkA antibody comprising a VH region having the amino acid sequence set forth in SEQ ID No. 37, and a VL region having the amino acid sequence set forth in SEQ ID No. 38, or a fragment thereof which maintains TrkA binding activity.
10. (Currently Amended) An immunotoxin comprising a cytotoxic agent bound to a humanized ~~anti-TrkA~~ anti-TrkA antibody comprising a VH region having the amino acid sequence set forth in SEQ ID No. 37, and a VL region having the amino acid sequence set forth in SEQ ID No. 38, or a fragment thereof which maintains TrkA binding activity.
11. (Previously Presented) A method for treating inflammation in a subject by administering a humanized anti-NGF antibody comprising a VH region having the amino acid sequence set forth in SEQ ID NO:17 and a VL region having the amino acid sequence set forth in SEQ ID NO: 18, or a fragment thereof which maintains NGF binding activity.
12. (Previously Presented) A method for treating pain in a subject by administering a humanized anti-NGF antibody humanized anti-NGF antibody comprising a VH region having the amino acid sequence set forth in SEQ ID NO:17 and a VL region having the amino acid sequence set forth in SEQ ID NO: 18, or a fragment thereof which maintains NGF binding activity.
13. (Previously Presented) A method for treating a tumor in a subject by administering a humanized anti-NGF antibody humanized anti-NGF antibody comprising a VH region having the amino acid sequence set forth in SEQ ID NO:17 and a VL region having the amino acid

sequence set forth in SEQ ID NO: 18, or a fragment thereof which maintains NGF binding activity.

14. (Previously Presented) A method for treating an HIV induced pathology in a subject by administering a humanized anti-NGF antibody comprising a VH region having the amino acid sequence set forth in SEQ ID NO:17 and a VL region having the amino acid sequence set forth in SEQ ID NO: 18, or a fragment thereof which maintains NGF binding activity.
15. (Currently Amended) A method for treating inflammation in a subject by administering a humanized ~~anti-TrkA~~ anti-TrkA antibody comprising a VH region having the amino acid sequence set forth in SEQ ID No. 37, and a VL region having the amino acid sequence set forth in SEQ ID No. 38, or a fragment thereof which maintains TrkA binding activity.
16. (Currently Amended) A method for treating pain in a subject by administering a humanized ~~anti-TrkA~~ anti-TrkA antibody comprising a VH region having the amino acid sequence set forth in SEQ ID No. 37, and a VL region having the amino acid sequence set forth in SEQ ID No. 38, or a fragment thereof which maintains TrkA binding activity.
17. (Currently Amended) A method for treating a tumor in a subject by administering a humanized ~~anti-TrkA~~ anti-TrkA antibody comprising a VH region having the amino acid sequence set forth in SEQ ID No. 37, and a VL region having the amino acid sequence set forth in SEQ ID No. 38, or a fragment thereof which maintains TrkA binding activity.
18. (Previously Presented) A polynucleotide encoding a humanized anti-NGF antibody comprising a VH region having the amino acid sequence set forth in SEQ ID NO:17 and a VL region having the amino acid sequence set forth in SEQ ID NO: 18, or a fragment thereof which maintains NGF binding activity.
19. (Currently Amended) A polynucleotide encoding a humanized ~~anti-TrkA~~ anti-TrkA antibody comprising a VH region having the amino acid sequence set forth in SEQ ID No. 37,

and a VL region having the amino acid sequence set forth in SEQ ID No. 38, or a fragment thereof which maintains TrkA binding activity.

20. (Previously Presented) A transgenic animal expressing a humanized anti-NGF antibody humanized anti-NGF antibody comprising a VH region having the amino acid sequence set forth in SEQ ID NO:17 and a VL region having the amino acid sequence set forth in SEQ ID NO: 18, or a fragment thereof which maintains NGF binding activity.

21. (Currently Amended) A transgenic animal expressing a humanized ~~anti-TrkA~~ anti-TrkA antibody comprising a VH region having the amino acid sequence set forth in SEQ ID No. 37, and a VL region having the amino acid sequence set forth in SEQ ID No. 38, or a fragment thereof which maintains TrkA binding activity.

22. (Previously Presented) A cell expressing a humanized anti-NGF antibody humanized anti-NGF antibody comprising a VH region having the amino acid sequence set forth in SEQ ID NO:17 and a VL region having the amino acid sequence set forth in SEQ ID NO: 18, or a fragment thereof which maintains NGF binding activity.

23. (Currently Amended) A cell expressing a humanized ~~anti-TrkA~~ anti-TrkA antibody comprising a VH region having the amino acid sequence set forth in SEQ ID No. 37, and a VL region having the amino acid sequence set forth in SEQ ID No. 38, or a fragment thereof which maintains TrkA binding activity.

24. (Previously Presented) The method of claim 1, further comprising retromutating one or more amino acid residues of the human VH and VL regions identified in (c).